

J. W. SAWYER
6-13-01
Amend A & 5

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Koji SHIMAZAWA, Tsuyoshi UMEHARA,
Satoru ARAKI

Application No.: New U.S. Patent Application

Filed: April 3, 2001

Docket No.: 109164

For: A TUNNEL MAGNETORISISTIVE EFFECTIVE ELEMENT, A THIN FILM
MAGNETIC HEAD, A MAGNETIC HEAD DEVICE AND A MAGNETIC DISK
DRIVE DEVICE

PRELIMINARY AMENDMENT

Director of the U.S. Patent and Trademark Office
Washington, D. C. 20231

Sir:

Prior to initial examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace claims 4, 6-9, 12 and 16 as follows:

Q1

4. (Amended) A tunnel magnetoresistive effective element as defined in claim 2, wherein the second conductive layer includes a second electrode/magnetic shielding portion and a second leading electrode portion, and the second electrode/magnetic shielding portion is provided on the other surface of the ferromagnetic tunnel effective film, and the second leading electrode portion is electrically conducted to a part of the second electrode/magnetic shielding portion at a position in which a magnetic field having the same direction as that of the bias magnetic field is generated by a sense current in the second electrode/magnetic shielding portion.

A